Appendix B
Academic Health Centers

This appendix contains the Academic Health Centers' responses to a survey about their curricula and activities that would forward the *1999-2004 Texas State Health Plan* goal:

Goal 4: Create a health care workforce trained and equipped to use education and prevention as the primary approach to helping Texans achieve optimal health.

Objective 4.1: Increase the implementation of prevention activities in the health care community through the academic curriculum.

Texas Statewide Health Coordinating Council

February 2000

THE TEXAS A&M UNIVERSITY SYSTEM
HEALTH SCIENCE CENTER:
Baylor College of Dentistry
College of Medicine
School of Rural Public Health

1. What efforts/initiatives have been taken to emphasize prevention in your institution's health professions education and training?

School of Rural Public Health: Being a school of public health, the curriculum emphasizes prevention throughout the curriculum. Prevention is particularly emphasized in the courses involving the program areas of "Social and Behavioral Health" and "Environmental and Occupational Health."

College of Medicine: Preventive medicine has been a relevant theme coursing throughout the curriculum in the College of Medicine since it's beginning over 25 years ago. This includes both basic and clinical science courses required in years I-IV. Over the past decade a four-year theme of preventive medicine has been developed and is both horizontally and vertically integrated within an interdisciplinary course, "Becoming a Clinician." In 1998, the dean requested a survey be completed that addressed the portions of the curriculum focused on preventive medicine and public health. The questions utilized were derived from materials obtained from the Office of Medical Education at Harvard School of Medicine, Texas Department of Health and Texas Medical Association. The results of the survey clearly indicate that the College of Medicine is delivering a significant amount of information on preventive medicine over the current four-year curriculum. Additionally, in 1999 the College approved new curricular goals and objectives, following national trends that clearly increase the importance of preventive medicine as a constituent part of the medical curriculum. These new goals and objectives insure that this important topic will remain a priority in our continually evolving curriculum. See Exhibit A.

Baylor College of Dentistry: Prevention is an integral part of the pre-doctoral curriculum at Baylor College of Dentistry (BCD). The following didactic courses have a strong preventive component:

Principles of Epidemiology and Prevention (1st year)
Principles of Dental Public Health (1st year)
Applied Preventive Dentistry (2nd year)

This is reinforced for the third year students in Clinical Preventive Dentistry. Students integrate principles of prevention into the treatment plans of all their patients.

In addition, the BCD / Department of Veterans Affairs dental public health residency is one of only 20 such programs in the United States. This program's prerequisites are a dental degree and an MPH degree. Mastery of the philosophical and technical aspects of prevention are core objectives of the program.

Prevention is the leitmotif of BCD's outreach efforts. BCD recently received $500,000 from Crystal Charities and the Baylor Oral Health Foundation to implement a pit and fissure sealant program in the Dallas area. Dental students and dental hygiene students apply the sealants under faculty supervision.

2. What curriculum changes have been made in the areas of community and public health, epidemiology, population-based medicine, working in multidisciplinary teams, and cultural competency? Does your institution have model programs/ curriculum for any of the above?

School of Rural Public Health: The distance education MPH program has been revised to reflect three major areas: (a) core public health competencies; (b) financial management, program management, and budgeting; and (3) community assessment, planning, implementation, and program evaluation.

Each of the areas of concentration – epidemiology, biostatistics, health policy and management, occupational and environmental health, and social and behavioral health—have similarly revised their curricula to reflect a strong practice orientation, including multidisciplinary perspectives, emic views of community, cultural competency, and an in depth knowledge of public health interventions. The MPH with a concentration in epidemiology, for example, has recently added an

epidemiologic practice course to emphasize the uses of epidemiology in health status assessment, monitoring, and evaluation.

College of Medicine: The questionnaire also demonstrated that community and public health, epidemiology, and cultural competency are and will continue to be essential parts of the curriculum. The College pioneered a very successful student preceptorship dependent upon community-based faculty at its inception almost 25 years ago. More recent surveys clearly indicate that components of the curriculum address population-based medicine and working in multi-disciplinary teams are also integral parts of our curriculum. The importance of multi-disciplinary teams involved in patient care is an essential component of today's medical education. Specifically, the College incorporates medical students, PharmD students, nurse practitioners, PA students, clinical nurse specialists and/or social workers into working teams with staff and resident physicians. Cultural competency has recently been identified as an area needing additional attention in our curriculum. A sustained emphasis on epidemiology and evidence-based medicine continues to be integrated across the four-year curriculum.

Baylor College of Dentistry: Among the changes in the pre-doctoral dental public health curriculum have been a re-sequencing of courses to expose first year students to community-based activities. For the past three years, students in Principles of Dental Public Health have been divided into groups to research community-based dental public health programs. They present a poster session to the entire school on the programs. In addition, nicotine cessation education has been emphasized as an appropriate and critical role for dental professionals.

Traditionally, a Dental Public Health Residency has been a one-year, in residence program with a strong research component for dentists with an MPH degree. Because dentists graduate with substantial debt and training stipends are small, it has been difficult to attract motivated candidates. BCD has developed an off-site (multi-year) program for dentists employed in public health environments. The employing agency is an active participant in the program and the resident's research is focused on areas of interest to the agency. This has the potential to contribute substantially to rebuilding the dental public health infrastructure in the United States. As an example, its graduates have served as: state dental director; Regional Dental Consultant for HRSA; worked in community health centers; served in the

Epidemiologic Intelligence Service. The program has received national recognition and its expansion is currently funded by HRSA.

Further, BCD requires that all students, faculty, and staff attend a "Welcoming Diversity Program," the purpose of which is to develop cultural sensitivity and competency.

3. Has your institution implemented any new methods/programs for evaluating or testing the competency of health professionals in the above areas? Please describe.

School of Rural Public Health: The School is participating in the Association of Schools of Public Health's current project that is determining the competencies that should be achieved through the curriculum of schools of public health in the various graduate degree programs available. These competencies should be completed and agreed upon by 2001.

The School is also implementing guidelines for a major paper as the culminating experience for MPH students. The major paper will be based on practicum experiences of students, and is designed to provide students with the opportunity to apply public health knowledge and skills, and to reflect on their field experience.

College of Medicine: Although there are no new methods/programs for evaluating/ testing the competencies of our students in these areas, questions on these topics comprise a portion of nearly all comprehensive exams and OSCE's.

Baylor College of Dentistry: Not applicable to BCD.

4. Has your institution been able to increase its clinic and community-based training sites? For comparison purposes, document the number and location of sites as of September 1996 and the number and location of sites existing as of September 1999. What model programs does your institution have in this area?

School of Rural Public Health: The School does not provide "clinical" training. The students in the current Master of Public Health degree program have a required practicum, i.e., field experience in a rural community or involving rural health issues,

that is 3-6 semester hours in duration. The School is new and started this practicum with its initial curriculum development in 1999.

College of Medicine: Our institution has been able to increase its clinic and community-based training sites in some areas (Family Medicine, Internal Medicine and Pediatrics), but not others (OB/GYN, Psychiatry and Surgery). See Table B-1.

Baylor College of Dentistry: There has been an increase in community-based training sites from 14 sites in September 1997 to 23 sites to date. Dallas is located in a metroplex that provides access to a number of quality community-based training sites from hospitals to community clinics. See Table B-2.

Table B-1. Texas A&M School Of Medicine/Clinic Training Sites

DEPARTMENTS	1996	1999
FAMILY MEDICINE	Bellmead, Belton, CS, Gatesville, Killeen, Round Rock, Santa Fe, Taylor, and Waco	Bellmead, Belton, CS, Gatesville, Georgetown, Hewitt, Killeen, Round Rock, Santa Fe, Taylor, and Waco
INTERNAL MEDICINE	3rd year – Main Clinic, VA 4th year – CS, Darnall, and VA	3rd year – Main Clinic, Round Rock, and VA 4th year – CS, Darnall, Main Clinic, VA, and elective in Georgetown
OB/GYN	Darnall, Main Clinic, and 4th year elective in CS	CS, Darnall, Main Clinic, and VA
PEDIATRICS	Main Clinic	Driscoll, Killeen, Main Clinic, and Waco
PSYCHIATRY	Darnall, Main Clinic, Temple VA, and Waco VA	Darnall, Main Clinic, Temple VA , and Waco VA
SURGERY	Main Clinic and VA	Main Clinic and VA

Table B-2. Community-Based Training Sites/September 1996 To Present
Baylor College Of Dentistry

Student	Program	Site	Existing as of Sep 1996	Sites since Sep 1996	Description
Dental	Predoctoral Public Health Science	Social Services Community Activities (see attached list)	NA	NA	Community health requirement
Dental	Predoctoral Oral Surgery	Scottish Rite Hospital – Dallas	Y		Rotation 1 week
Dental	Predoctoral Oral Surgery	Parkland Hospital – Dallas	Y		Rotation 1 week
Dental	Predoctoral Oral Surgery	Veteran's Administration Hospital – Dallas	Y		Rotation 1 week
Dental	Predoctoral Pediatric Dentistry	Children's Hospital – Dallas		Y	Special clinical program
Dental Hygiene	Baccalaureate	DeHaro Saldivar – Dallas	Y		Rotation
Dental Hygiene	Baccalaureate	James and Louis Addison Kiwanis Dental Center –		Y	Rotation Created 2000
Dental Hygiene	Baccalaureate	Indian Health Sites (details available) Oklahoma - 4 sites	Y		Preceptorship
Dental Hygiene	Baccalaureate	Indian Health Sites (details available) Oklahoma - 6 sites		Y	Preceptorship
Dental Hygiene	Baccalaureate	Community Educational Activities (see att. list)	NA	NA	Community health requirement
Resident	Advanced Education in General Dentistry	Dental Health Program – Dallas		Y	Rotation
Resident	Advanced Education in General Dentistry	Denton State School – Denton	Y*		*Discontinued 1999
Resident	Endodontics	Children's Hospital – Dallas	Y		Rotation 8 days
Resident	Oral Surgery	Scottish Rite Hospital – Dallas	Y		Rotation 1 month
Resident	Oral Surgery	Parkland Hospital – Dallas	Y		Rotation 1 month
Resident	Oral Surgery	Veteran's Admin. Hospital – Dallas	Y		Rotation 1 month
Resident	Oral Surgery	Medical City Hospital – Dallas	Y		Rotation 1 month
Resident	Orthodontics	Children's Medical Center of Dallas		Y	Rotation Weekly-Cleft palate
Resident	Pediatric Dentistry	Children's Medical Center of Dallas		Y	Fellowship created in 1997
Resident	Pediatric Dentistry	Dental Health Program (Bluitt Flowers and East Dallas) – Dallas		Y	Rotation
Resident	Pediatric Dentistry	Mesquite Community Hospital – Mesquite		Y	Created in 1999
Resident	Pediatric Dentistry	Baylor University Medical Center – Dallas		Y	Created in 1999 Palatal protectors
Resident	Periodontics	Scottish Rite Hospital Dallas	Y		Rotation
Resident	Periodontics	Veteran's Admin. Hospital – Dallas	Y		Rotation
Resident	Periodontics	Children's Medical Center of Dallas	Y		Call - weekly
Resident	Prosthodontics	Veteran's Administration Hospital – Dallas	Y		Rotation

One model program being implemented is the "Dallas County Sealant Initiative" funded by the Crystal Charity Ball in Dallas. This initiative plans to have 2,500 students receive sealants (protective resin for the chewing surfaces of the tooth to prevent decay) annually for three years. This will have a tremendous impact on school-aged children toward improving the oral health of these students. Funding for this initiative began on April 1, 2000.

A second distributed model of community-based training is the current activity of Baylor's pre-doctoral and dental hygiene students in community-based preventive programs. Students have a service commitment that places them in a variety of settings in the community. These settings range from health fairs and oral cancer awareness and detection to oral health screenings and educational presentations in the public schools. While not detailed on the attached chart there were 70 activities in 1996-1997 and 121 in 1998-1999 for the pre-doctoral students. There were 27 activities in 1999 for the dental hygiene students.

A third distributed model of community-based training is the "By the Roots," an oral health curriculum for K-6. This program has a series of modules that enhance the awareness of the student to his/her oral health. These modules, in a timely fashion, reveal to the students useful information about dentistry and good oral preventive practices.

5. Are your medical and nursing schools using the Agency for Health Care Research and Quality Putting Prevention Into Practice (PPIP) concepts and resources (e.g. Health Risk Profile)? How are they being used? PPIP materials can be accessed through the AHCPR website www.ahcpr.gov/ppip/.

School of Rural Public Health: Not applicable

College of Medicine: Currently these materials are not being utilized. However, materials from other sources are. There is an increased emphasis on the use of algorithms and evidence-based medicine.

Baylor College of Dentistry: Not applicable

6. What state or legislative policy recommendations (besides increases in funding) would be instrumental in promoting the accomplishment of this Goal and Objective for the state of Texas?

School of Rural Public Health: Set institutional performance measures in this area and support special items that target this goal/objective.

College of Medicine: Continue to request updates on progress. It would not be appropriate for the state to legislate curriculum in medical schools.

Baylor College of Dentistry: Set institutional performance measures for these goals and objectives. Request for reporting of these measures in LAR preparation. Support special items that target these goals and objectives.

7. How would your institution use increases in funding to advance this Goal and Objective at your institution?

School of Rural Public Health: Support the human and physical infrastructure needs to expand distance education in public health education that focuses on community health, prevention, and other health of the public-related areas. The school is currently delivering, through distance education, training in public health, community health, and prevention to Tyler, Mt. Pleasant, Marshall, Lufkin, and McAllen. An off-campus MPH program is scheduled to start in Temple, and a distance education MPH will be delivered to Corpus Christi beginning in fall, 2000.

The school has participated in an approved grant application to the Health Resources and Services Administration (HRSA) – with North Texas and the University of Texas Schools of Public Health – to deliver public health training to the existing public health workforce in Texas.

The school is also participating with the Texas Public Health Leadership Institute in a grant submission to the Texas Department of Health to provide leadership training in public health.

College of Medicine: No response to this question

Baylor College of Dentistry: Increases in funding would be used to provide the personnel and infrastructure necessary to support and extend external training programs for undergraduate and graduate dental students, and support for distance education. These training opportunities would focus primarily on community health, prevention, and certain other public health issues. The long term goal of these programs is to achieve the Healthy People 2010 goals for oral health, particularly with respect to reductions in dental decay, increased placement of preventive sealants, and increasing the number of school-based health centers with oral health components and health centers with oral health service components. Baylor College of Dentistry is already active in these areas, having recently begun a $400,000 school-based sealant program as training for undergraduate dental and dental hygiene students. The school's Center for Telehealth currently provides distance education/consultation with remote sites in South Texas. Increased funding would serve to maintain and extend these programs, as well as allowing for new initiatives currently under development, such as an injury-prevention program for high school athletes which links mouth guard fabrication with tobacco education and cessation information.

THE UNIVERSITY OF TEXAS
HEALTH SCIENCE CENTER HOUSTON:
Medical School
School of Nursing
School of Public Health
Dental Branch

1. What efforts/initiatives have been taken to emphasize prevention in your institution's health professions education and training?

Medical School

- The Medical School has incorporated concepts of prevention in undergraduate courses such as *Fundamentals of Clinical Medicine* during the problem-based learning. The students are also exposed during their clinical training years on a case-by-case basis.

- Several faculty members are active in the Cancer Teaching and Curriculum Enhancement in Undergraduate Medicine (CATCHUM) project in conjunction with seven other Texas medical institutions. The project was funded by the National Cancer Institute and emphasizes cancer education and screening.

School of Nursing

- *Health Promotion through the Lifespan.* A clinical course for all first semester senior nursing students.

- *Community Health Nursing Practice*. The emphasis of this course is on health prevention, education and promotion, prevention and cultural diversity. The course incorporates the Healthy People 2000 National Health Objectives. In addition, the students are able to synthesize and apply their didactic content through a teaching project to a community agency and a debate on Healthy People 2000 Objectives in their clinical course.

- Management of Cancer Prevention and Detection is completely dedicated to cancer prevention and education of the public regarding cancer risks.

- *Primary Prevention in Individuals, Families and Communities*. This course is designed to highlight content in primary and secondary prevention as it relates to advanced practice with communities, families and individuals. The course explores interdisciplinary research relevant to health promotion, disease pre-

vention and screening. Students work with families of diverse structure, economic and cultural backgrounds across the health/illness continuum.

- *Perinatal/Neonatal Nursing for Healthy and At-Risk Clients.* This course emphasizes health promotion; risk assessment, and primary and secondary prevention.

- *Management of Pathological Conditions of the Pregnant Woman and Neonate* The curriculum explores issues of comprehensive health promotion and screening for woman of childbearing age and the newborn. The course discusses research findings, theoretical models and their social context.

School of Public Health

- The *Medicine/Public Health Initiative* is an effort to bring the two fields closer together in the training of professionals with an emphasis on prevention.

- The *Society and Health Initiative* has resulted in the formation of the Texas Foundation for Society and Health, which emphasizes prevention of disease in populations, using policy as well as evidence-based medicine and related interventions to improve health.

- The School of Public Health has ten research centers, all of which focus on prevention of disease and promotion of health. The largest is the Center for Health Promotion Research and Development. Other centers include the Center for Health Policy Studies, Center for Infectious Disease, Center for Prevention of Injury and Violence, Center for Medical and Public Health Chronobiology, Coordinating Center for Clinical Trials, Epidemiology Research Center, Human Nutrition Center, Human Genetics Center, Texas Prevention Center and Southwest Center for Occupational and Environmental Health.

Dental Branch

- In the Doctor of Dental Surgery (DDS) curriculum, dental students are provided didactic and clinical instruction in all aspects of preventive dentistry. This begins in the first year of dental school with the problem-based course, *Dental Public Health I: Introduction to Dental Prevention*.

- In the second year, dental students provide preventive dentistry education to elementary age school children in the Houston Independent School District.

- In the spring semester of the second year, dental students participate in *Dental Public Health II: Behavioral Context-Dental Patient Management.*

- The third year courses *Planning Programs for Populations* and *Dental Public Health* address such issues as water fluoridation and preventive dental care for disadvantaged populations.

- The third year clinical experience provides an opportunity for students to treat special patients including medically and physically handicapped and the financially disadvantaged. Prevention is emphasized during this treatment.

- During the fourth year, dental students treat medically compromised patients at the Dental Branch. The clinical class provides dental treatment including preventive services at one of three extramural clinic sites: Brownsville Community Health Center, Brownsville, TX; City of Laredo Health Department, Laredo, TX; and Rusk Elementary School (HISD), Houston, TX. Students in advanced general dentistry programs and advanced specialty programs emphasize prevention at the Bering Dental Clinic (AIDS/HIV). Dental students emphasize prevention while treating patients on the UT-Houston Dental Branch Mobile Dental Van.

- Prevention in the dental hygiene profession and the UT-Houston Dental Hygiene Program is always of utmost importance. A majority of the classes for the dental hygiene students emphasize prevention in specific areas. The information from the lectures is then transferred into the clinical setting where the students learn to apply the information. A few of the topics taught are nutritional counseling, brushing and flossing, application of pit and fissure sealants, and topical fluoride application. Students must perform each task at a competent level in order to be considered for graduation.

2. What Curriculum changes have been made in the areas of community and public health, epidemiology, population-based medicine, working in multidisciplinary teams and cultural competency? Does your institution have model programs/ curriculum for any of the above.

UT-Houston is currently working on several multidisciplinary model programs that encompass the institution. A feasibility study has been finalized that makes

recommendations for the establishment of Interdisciplinary Health Professions Education. The report will be presented to the Southern Association of College and Schools in the Spring 2000. The recommendations include creating interdisciplinary courses and requiring all medical professional students to complete at least one of the courses in order to graduate.

The *Frontiers in Interdisciplinary Health Care* course also provides an opportunity for UT–Houston students to interact with students in the other health professions. This course is organized in a "team" format. The teams are composed of students who are enrolled in the schools within the UT-Houston Health Science Center as well as students enrolled in a variety of colleague institutions including the University of Houston and Texas Woman's University. Each team typically has representative students from medicine, dentistry, nursing and public health as well as a variety of allied health, biomedical sciences, pharmacy, and nutrition/dietetics sciences.

The UT-Houston Health Care Team Competition is a program that emphasizes an interdisciplinary educational approach to problem solving that involves not only the UT-Houston Health Science Center schools but also representation from the University of Houston College of Pharmacy, Health Law and Policy Institute and the Graduate School of Social Work. The competition is designed to illustrate an interdisciplinary approach to health care.

The Medical School and the School of Public Health are working together to offer the MD/MPH Program. Students select electives in public health as part of their medical curriculum. The courses are taken in the third and fourth year medical school years. Public health practica, electives, and other enrichments are offered as part of the rest of the medical school curriculum.

Medical School

- Students are required to take a course in epidemiology during their fourth year of medical school. A non-credit elective has been offered over the past two years, which is open to all students. Both the required and elective courses have a strong emphasis on community and public health and population-based medicine. These topics are also incorporated into the problem-based cases in the *Fundamentals of Clinical Medicine.*

- Students are introduced to the concept of working in a multidisciplinary setting when they begin their first formal training during the *Introduction to Clinical Medicine* given in the first year of medical school. The preceptor portion of the course is provided in a community setting. This experience is enhanced during the second year when students spend one afternoon a week in a clinical setting as part of the *Physical Diagnosis* course. During the third year clerkships the students are active participants in the clinical care of patients working in multidisciplinary teams.

- The medical students are ethnically diverse and have initiated several noncredit electives directed to educate the classes as a whole on patient/medical issues encountered when dealing with specific populations. Elective courses have been offered dealing with treating the Hispanic patient, community screening and the Asian community and alternative medicine. In addition, the patient population in the greater Houston metropolitan area, as represented in the teaching clinics and hospitals, provides a rich cultural exposure to patients from all socioeconomic levels.

School of Nursing

- Community and public health epidemiology are integral components of both the *Health Promotion through the Lifespan* and *Community Health Nursing Practice* courses. These classes utilize a multidisciplinary approach in the clinical settings and application of content.

- The *Perinatal/Neonatal Nursing for Healthy and At-Risk Clients* have gone to multidisciplinary nursing teams. The problem based learning team comprises women's health, neonatal and perinatal students. Cases deal with cultural competence in the issues related to pregnancy in other cultures.

- The *Issues in Aging* course has several lectures pertaining to cultural competency and the interdisciplinary cases that accompany the course have a strong cultural component.

- There has been a change to incorporate epidemiology into the research courses on the graduate level especially in regards to the *Management of Cancer Prevention and Detection* course. The oncology clinical courses place heavy emphasis on cultural issues as they relate to cancer prevention; detection, treatment and long term/palliative care issues.

School of Public Health

- The Acres Home Community/University of Texas-Houston Health Science Partnership is a model program that works in a low-income, minority area to improve the health of citizens. The initiative furnishes opportunities for students as well as faculty to work in interdisciplinary teams. Cultural competency is a main area of instruction that students learn first hand.

- A course on *Social and Behavioral Aspects of Health* is offered to teach students about cultural competency, in addition to the Acres Home project.

- The School of Public Health's program in San Antonio has a course titled *Community-Based Assessment*. It is designed to place interdisciplinary teams of students into community settings to assist local citizen groups or health agencies to systematically assess the needs, assets and capacity of the community. Cultural competency is a feature of the course in two ways: first, the multi-ethnic, bilingual population in Bexar County is a living laboratory for the students to practice effective communication especially listening skills; and training on perspectives in the community is provided.

Dental Branch

- In the DDS curriculum didactic instruction and clinical experiences encompass community and public health, epidemiology, population-based medicine, working in multi-disciplinary teams and cultural competency.

- Over the past three or four years, the Dental Branch has restructured its behavioral science curriculum and renamed the Department of Health Promotion and Dental Care Delivery to better coordinate preventive dentistry and dental public health issues and topics. The department is now The Department of Dental Public Health and Dental Hygiene.

- The following courses and clinics provide an integrated logical approach to these areas:

  Ethics in Dentistry

  Dental Public Health Introduction to Preventive Dentistry

  Dental Public Health II-Behavioral Context-Dental Patient Management

  Communication in Dentistry

  Managing a Contemporary Dental Practice

Dental Public Health V: Planning Programs for Populations
Dental Public Health IV: Dental Public Health
The New Graduate as Manager,
Clinical Conference
Dental Public Health Clinic
Dental Public Health Clinic.

- Students enrolled in the *Dental Hygiene Community Health Course* must define a community project. To receive credit they must select an area of need, design a program and then implement it — meeting the goals and objectives.

The Compromised Dental Patient

- The Dental Branch also offers an Advanced Education Program in Dental Public Health. Students in this program interact closely with the School of Public Health. Their major focus is in the area of community and public health, epidemiology, population-based dentistry, working in multidisciplinary teams and cultural competency.

3. Has your institution implemented any new methods/programs for evaluation or testing the competency of health professionals in the above areas?

Medical School

- The Objective Structural Clinical Exam (OSCE) process and the fourth Year Competency exam are new programs using standardized patients. The programs have been implemented, but are not used exclusively to evaluate the competency of the students.

School of Nursing

- Cultural competency on the theoretical basis by use of discussion questions and case studies are used in the School of Nursing. The preceptorship students are observed regarding cultural competency during their interactions with interdisciplinary teams. Faculty visits and log entries are also evaluated.

- • Additionally, the *Community Health Nursing Practice* and the *Health Promotion through Lifespan* courses have implemented a quantitative method of evaluating students in the clinical settings. The clinical faculty for these courses

meets regularly to share methods of evaluating students' progress and work efforts. Faculty also has the opportunity to objectively evaluate the clinical components of one another's students.

School of Public Health

- The school offers outreach education to personnel in regional and county health departments, using interactive television and computer-based instruction. A total of 70 health professionals have been taught and evaluated in terms of course performance. Courses include epidemiology, biostatistics, behavioral science, environmental science, and management and policy sciences.

Dental Branch

- The DDS Program has a competency-based curriculum in which108 competencies must be met. Basic science courses provide the foundational knowledge and pre-clinical courses provide the foundational skills for the students to meet these competencies. The competency document is presently under revision by the Dental Branch Curriculum Committee.

- The Dental Hygiene Program has been competency-based for several years. Students have specific criteria that they must achieve in order to demonstrate competency.

4. Has your institution been able to increase its clinic and community-based training sties? For comparison purposes, document number and location of sites as of September 1996 and number and location of sites existing as of September 1999. What model programs does your institution have in this area?

(See Table B–3 for the list of affiliations for 1996 and 1999.)

Medical School

- The Medical School has been able to institute audio/video linkages between the Medical School and all the Harris County Hospital District community clinics at which the students are assigned. These linkages will be used to enhance the education of our students, provide community patient education sessions, and enhance community faculty education and support for patient care.

Table B-3. University of Texas Health Science Center

September 1, 1996.
Total number 221

Major

Herman Hospital
Lyndon B. Johnson General Hospital
St. Joseph Hospital,
Harris County Psychiatric Center
Texas Heart Institute,
St. Luke's Episcopal Hospital,
Memorial Hospital Southwest
San Jacinto Methodist Hospital in Baytown,
Shriner's Hospital,
Texas Children's Hospital
The University of Texas M. D. Anderson Cancer Center
Southwest Center for Occupational Health and Safety
University of Houston
Rice University,
Baylor College of Medicine
University of Houston–Downtown
Houston Baptist University
Prairie View A&M
Houston Community College
College of the Mainland (nursing);
Texas Woman's University
University of Houston
NE Louisiana State University
Louisiana State University
Wayne State University
Samaritan Pastoral Counseling Center at Clear Lake
UT Medical Branch

Other Affiliations

AMI Brownsville Medical Center
Brighton Gardens by Marriott
Affiliated Anesthesia Association
Alief Independent School District
American Medical International, Inc.
ARA Living Centers of Texas, Inc.
Associated Speech and Language Services
Baptist Hospital of Southeast Texas
Baylor University Medical Center
Bayou Glen Nursing Home
Bellaire General Hospital
Belle Park Hospital
Bering Dental Center
Blinn College
Boston University
Brackenridge Hospital
Brazos Presbyterian Homes, Inc.
Briarwood School
Brighton Garden
Brooke Army Medical Center
Brownsville Community Health Center
Cancer Counseling, Inc.
Capitol Anesthesiology Association
Casa de Ninos
Casa Juan Diego
Cenikor Foundation
Center for Multiple Handicapped Children
Center for Psychiatric Medicine
Center for the Retarded, Inc.
Center for Women's Health
Central Texas Medical Foundation
Charles University of Prague, Czechoslovakia
Charter Medical Corporation
Charter Hospital of Kingwood
Chicano Family Center
Children's Mental Health Services of Houston, Inc. Children's Respiratory Summer Camp Fndn.
Citizens General Hospital
City of Bellaire
City of Houston Health Department
City of Laredo Health Department
City of Pasadena
City of West University Place
Clarewood House
Clear Lake Hospital
College Misericordia, Dallas, Pennsylvania
Communities in Schools
Cook Ft. Worth Children's Medical Center
Creighton University, Omaha, Nebraska
Cypress Creek Hospital
Cypress Fairbanks Independent School District
Cypress Fairbanks Medical Center Hospital
Deer Park Independent School District
Denson Community Health Services, Inc.
Department of Veterans Affairs Medical Center

Depelchin Children's Center
Diagnostic Center Hospital
Easter Seal Society of Harris/Ft. Bend Counties
Epic Parkway Hospital
Fielding Institute
Fort Bend Hospital
Fourth Ward Clinic, Inc.
Frontier School of Midwifery
Georgetown University Medical Center
Golden Age Manor
Good Neighbor Health Care Clinic
Government of India
Gulf Coast Dialysis Clinic
Gulf Coast Regional Blood Center
Gunma University (Japan)
Haffkine Institute (Bombay, India)
Harris County Children's Protective Services
Harris County Health Department
Harris County Hospital District
HCA Beaumont Neurological Hospital
HCA Gulf Pines Hospital
HCA Medical Center Hospital
HCA Valley Regional Medical Center
HCA West Houston Medical Center
Heights Hospital
Hermann Park Manor
Hidalgo County Health Department
Holly Hall
Hospice Care, Inc.
Houston Area Women's Center
Houston Cardiovascular Rehabilitation Center
Houston Child Guidance Center
Houston Eye Clinic/Houston Microsurgical Center
Houston Hospice
Houston International Hospital
Houston Independent School District
Houston Northwest Medical Center Hospital
Houston Women's Health Care Center, Inc.
Independence Hall
Institute for Rehabilitation and Research
Institute of Clinical Toxicology
Institute of Hematology
Jewish Community Center
Jewish Family Service
Katy Independent School District
Kelsey Seybold Clinic, P.A.
King's College (London, England)
Klein Independent School District
Knapp Medical Center
Lamar Consolidated Independent School District
Laurel Wood Hospital
Leggett Memorial Hospital
Marriage and Family Therapy; Center for Education
McAllen Medical Center
Medical Center Del Oro Hospital
Memorial City General Hospital Corporation
Memorial Hall School
Memorial Hospital System
Mental Health and Mental Retardation Authority of Harris County
Methodist Hospital
Methodist Retirement Services, Inc.
Mission Hospital
Mississippi Medical Center
Montgomery County Hospital District
Montgomery County Medical Education Foundation
Montrose Clinic
National Institutes of Health, Clinical Center
National Multiple Sclerosis Society
New Age Hospice of Houston, Inc.
North Forest Independent School District
North Harris Montgomery Community College
Obstetrics and Gynecology Associates
Outpatient Healthcare, Inc. *dba* Travis Center
Outpatient Surgery
Park Plaza AMI Hospital
Pasadena Bayshore Medical Center
Pasadena Independent School District
Planned Parenthood Center
Procare Health Services
Renilda Hilkemeyer Child Care Center
Rio Grande Regional Hospital
Rosewood General Hospital
Sam Houston Memorial Hospital
Sam Houston State University
San Jacinto College District
San Jacinto College South
San Jose Clinic
Seven Acres Jewish Geriatric Center
Sharpstown General Hospital
Shell Oil Co.—DPMC
Sheltering Arms
Sickle Cell Association of the Texas Gulf Coast
South Texas Hospital
Southwest Community Health Clinic
Spring Branch Independent School District
Spring Branch Memorial Hospital
Spring Shadows Pines Residential Care Facility

St. Dominic Nursing Home
St. Elizabeth Hospital
St. John's School
Stafford Meadows Hospital
Stephen F. Austin University
Tel Aviv University (Israel)
Tenneco, Inc.
Texas Department of Health
Texas Department of Mental Health/ Mental Retardation
Texas Department of Public Health
Texas Home Health, Inc.
Texas Institute for Behavioral Medicine and Neuroscience
Texas Institute for Reproductive Medicine and Endocrinology, P.A.
Texas Tech University Health Sciences Center
The Forum at Memorial Woods
The Hospice at the Texas Medical Center
The Shoulder, Inc.
Timberlawn Psychiatric Hospital
Tokyo Dental College
Tomball College
Tomball Community Hospital
Tripler Army Medical Center, Hawaii
US Public Health Service Hospital
US Sports Academy
United Way Family Services Association
University of California at San Francisco, Fresno at Atascadero State Hospital
Universidad de Chile (Santiago, Chile)
Universidad de Guadalajara (Mexico)
University of New England
University of Texas at Austin
University of Texas Health Science Center at San Antonio
Urban Affairs Corporation, Inc.
Valley Baptist Medical Center
Valley Regional Medical Center
Veterans Administration Medical Center
Villa Northwest Convalescent Center
Village Women's Clinic
Visiting Nurses Association
West Houston Medical Center
West Oaks Hospital
Westbury Hospital
The Woman's Hospital of Texas
Women's Center
Woodlands Place Nursing Center, Inc.
YMCA at Texas Medical Center
York Plaza Hospital

September 1, 1999
Total 199
Major

Memorial Hermann Hospital
Memorial Hermann Children's Hospital,
Lyndon B. Johnson General Hospital
The University of Texas M. D. Anderson Cancer Center;
St. Joseph Hospital;
Harris County Psychiatric Center;
St. Luke's Episcopal Hospital; Memorial Hermann
Southwest Hospital;
Shriners Hospital for Children-Houston;
Texas Children's Hospital
The Texas Institute for Rehabilitation and Research (TIRR).
Veterans Administration Medical Center;
Ben Taub Hospital
Methodist Hospital
Spring Branch Medical Center.
Southwest Center for Occupational Health and Safety
University of Houston,
Rice University,
Baylor College of Medicine
College of the Mainland
Houston Baptist University
Prairie View A&M (nursing)
Houston Community College
Texas Woman's University
Lee College
Stephen F. Austin University
UT Medical Branch
UT-Austin
Texas Southern University
San Jacinto College South
Sam Houston University
DeBakey High School for Health Professions

AMI Brownsville Medical Center
Brighton Gardens by Marriott
Affiliated Anesthesia Association
Alief Independent School District
American Medical International, Inc.
ARA Living Centers of Texas, Inc.
Associated Speech and Language Services
Baptist Hospital of Southeast Texas
Baylor University Medical Center
Bayou Glen Nursing Home
Bellaire General Hospital
Belle Park Hospital
Bering Dental Center
Blinn College
Boston University
Brackenridge Hospital
Brazos Presbyterian Homes, Inc.
Brairwood School
Brighton Garden
Brooke Army Medical Center
Brownsville Community Health Center
Cameron County Health Department
Cancer Counseling, Inc.
Capitol Anesthesiology Association
Casa de Ninos
Casa Juan Diego
Cenikor Foundation
Center for Multiple Handicapped Children
Center for Psychiatric Medicine
Center for the Retarded, Inc.
Central Texas Medical Foundation
Charles University of Prague, Czechoslovakia
Charter Medical Corporation
Charter Hospital of Kingwood
Chicano Family Center
Children's Mental Health Services of Houston, Inc. Children's Respiratory Summer Camp Fndn.
Citizens General Hospital
City of Bellaire
City of Houston Health Department
City of Laredo Health Department
City of Pasadena
City of West University Place
Clarewood House
Clear Lake Hospital
College Misericordia, Dallas, Pennsylvania
Communities in Schools
Community Partners–Rusk Elementary School
Cook Ft. Worth Children's Medical Center
Creighton University, Omaha, Nebraska
Cypress Creek Hospital
Cypress Fairbanks Independent School District
Cypress Fairbanks Medical Center Hospital
Deer Park Independent School District
Denson Community Health Services, Inc.
Department of Veterans Affairs Medical Center
Depelchin Children's Center
Diagnostic Center Hospital
Easter Seal Society of Harris/Ft. Bend Counties
Epic Parkway Hospital
Fielding Institute
Fort Bend Hospital
Foundation for Orthopaedic Athletic and Reconstructive Research
Fourth Ward Clinic, Inc.
Frontier School of Midwifery
Georgetown University Medical Center
Golden Age Manor
Good Neighbor Health Care Clinic
Government of India
Gulf Coast Dialysis Clinic
Gulf Coast Regional Blood Center
Gunma University (Japan)
Haffkine Institute (Bombay, India)
Harris County Children's Protective Services
Harris County Health Department
Harris County Hospital District
Harris County Jail
Harris County Psychiatric Center
HCA Beaumont Neurological Hospital
HCA Gulf Pines Hospital
HCA Medical Center Hospital
HCA Valley Regional Medical Center
HCA West Houston Medical Center
Heights Hospital
Hermann Park Manor
Hidalgo County Health Department
Holly Hall
Hospice Care, Inc.
Houston Area Women's Center
Houston Cardiovascular Rehabilitation Center
Houston Child Guidance Center
Houston Community College System
Houston Eye Clinic/Houston Microsurgical Center
Houston Hospice
Houston International Hospital
Houston Independent School District

Houston Northwest Medical Center Hospital
Houston Women's Health Care Center, Inc.
Independence Hall
Institute for Rehabilitation and Research
Institute of Clinical Toxicology
Institute of Hematology
Interfaith Ministries
Jewish Community Center
Jewish Family Service
Katy Independent School District
Kelsey Seybold Clinic, P.A.
King's College (London, England)
Klein Independent School District
Knapp Medical Center
Lamar Consolidated Independent School District
Laurel Wood Hospital
Lee College
Leggett Memorial Hospital
Louisiana State University
Marriage and Family Therapy; Center for Education
McAllen Medical Center
M. D. Anderson Cancer Center
Medical Center Del Oro Hospital

Dental Branch

- The community-based training activities for the Dental Branch have decreased over the last few years due to a loss in the DDS class sizes.

School of Public Health

- The School of Public Health places a particular emphasis on giving students community-based experience at supervised training sites. All M.P.H. and Dr.P.H. students are expected to have a planned, supervised and evaluated practice experience that applies the knowledge and skills acquired through course work.

- Effective July 1999, the School's community based Public Health Program completed its program website. This site includes a newly constructed access database, which enhances the student's ability to search for appropriate internship sites as well as the program's ability to organize and analyze information, including the number of clinic and/or community-based training sites available for practica.

- The *American Cancer Society (ACS) Collaborative Evaluation Fellows Project* has received a foundation grant to fund evaluation projects that are carried out by students in the school of public health in collaboration with local ACS units.

- The *Health Policy Internship* provides staff services to Texas Legislators during the fall and spring semester. UT-HSPH sponsoring faculty provides academic supervision, technological assistance, and consultation to the student and legislator to whom they are assigned on health topics related to the intern's assigned responsibility. Four competitive internship opportunities are offered every other year and coincide with the Texas State legislative session.

- The *Comparative Health Care Internship Program* in London, England is a joint program between Richmond, the American International University in London, and the University of Texas Health Science Center Houston. The ten-week program takes place in London from June 2, 2000 to August 12, 2000. Seminars with preceptors are planned for the entire group during the first two weeks of the program and often include discussions and meetings held regularly at the London School of Hygiene and Tropical Medicine. Participation in this program will allow the student to expand their knowledge of health care in another country, to develop their research expertise and to deepen their knowledge of specific aspects of health care.

5. Are your medical and nursing schools using the Agency for Health Care Policy and Research Putting Prevention into Practice (PPIP) concepts and resources (e.g. Health Risk Profile)? How are they being used? PPIP materials can be accessed through the AHCPR website: www. ahcpr.gov/ppip/

The Medical School gives the faculty the PPIP guidelines for the development of course materials. The school also offers a prevention course within the family practice curriculum for fourth year students. The course provides the student with experience related to primary prevention, screening, risk factor assessment and consultation related to lifestyle management.

6. What state or legislative policy recommendations (besides increases in funding) would be instrumental in promoting the accomplishment of the Goal and Objective for the state of Texas?

- Create state-funded preventive medicine residencies for physicians through the Texas Department of Health and Higher Education Coordinating Board.
- Require a prevention component as a part of all CNE/CME (Continuing Nurse Education/Continuing Medical Education) training overseen by the Board of Nursing Examiners and Board of Medical Examiners, respectively.
- Encourage all health professions education programs in the state to include a prevention module or component in their curriculum, if there isn't one already.

- Before health care providers can become Medicaid providers, require them to indicate how they would emphasize prevention when caring for patients.

7. How would your institution use increases in funding to advance this Goal and Objective at your institution?

- Support the research activities of the Texas Prevention Research Center; particularly those research projects that focus on prevention in a culturally and ethnically competent manner.
- As a part of the Society and Health Initiative, UT-Houston would focus on *population* related prevention research, which contrasts with most prevention research that focuses on the *individual* as the key to prevention. The population focus can identify and explicate those societal factors that can be important in preventing illness and disease. Components of this research agenda might include the following:
- Population prevention research funding for junior faculty and post-doctoral fellows wishing to pursue this type of research.
- Community health center pilot to study and assess population-level prevention interventions.
- Since the University is in the midst of considering recommendations regarding Interdisciplinary Health Professions Education (e.g., the SACS Study), funds could be used to support those components of the curriculum that relate to or focus on prevention training. For example, prevention-related cases and projects could be supported and included in both the 'Frontiers of Interdisciplinary Care' course and the 'Practice of Interdisciplinary Health Care' practica.

UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO:
Medical School
Dental School
School of Nursing
School of Allied Health Sciences

1. What efforts/initiatives have been taken to emphasize prevention in your institution's health professions education and training?

Medical School: Topics on disease prevention are presented throughout the four-year curriculum in the Medical School and are discussed with appropriate disease categories. Students also learn the practical application of disease prevention in multiple outpatient clinics where they learn how to discuss and implement preventive interventions.

Dental School: There are several major areas of prevention that are emphasized in the Dental School: Dental caries/ periodontal disease, oral cancer, injury prevention and general health (evidence of hypertension, excessive sun exposure, tobacco use, substance abuse, physical abuse (child or adult), or other issues that are noted on patient's medical, dental and social histories or found on a clinical exam. All departments are involved in these efforts in one way or another, but certain departments take the primary responsibility. These are Community Dentistry (caries), Periodontics (periodontal disease), Dental Diagnostic Science (history and exam finding for oral cancer and general health), General Dentistry (follow up on all areas in the senior year) and Pediatric Dentistry (for all the above in children). Injury prevention is covered in Prosthodontics (mouth guards for sports injuries), Oral Surgery (general trauma), Endodontics (injury to teeth) and Pediatric Dentistry (trauma for children). Freshman students learn about preventive dentistry for individuals and the community, and general physical evaluation. Students also go to elementary schools to monitor a fluoride rinse program. Sophomore students build on their didactic work from the freshman year and learn how to do a caries risk assessment, how to incorporate a nutritional analysis into the caries risk assessment and how to evaluate the periodontium. Junior students do a complete history and head and neck exam, a caries risk assessment, and a periodontal assessment on all their patients. They develop a specific preventive plan for caries, instruct patients on removing

plaque and calculus, and counsel or refer patients with other problems where preventive intervention would be important. They also have a rotation to an elementary school where they place sealants in children's teeth. The senior students incorporate all they have learned into the management of their patients.

School of Nursing: The School of Nursing has always had an emphasis on community assessment in order to focus on illness prevention and health promotion activities to enhance student learning. Clinical learning activities such as screening skills (hearing testing, vision screening, scoliosis screening), nutrition assessment and patient teaching are emphasized as educational threads in every course.

Prevention is a primary educational thread in all five graduate program clinical majors. Prevention and educational teaching are emphasized for the individual, family, and the community. Health Fairs are frequently used educational tools that allow students to put education into practice.

School of Allied Health: Prevention and health promotion always have been hallmarks of the allied health professions. Even the various accrediting bodies require theory and practice in health promotion and prevention strategies for individuals and populations. Examples of our activities other than the traditional classroom instruction include:

a. Health screenings for diabetes/anemia at community events and at UTHSCSA sponsored events.
b. All departments present health promotion and prevention strategies to the public at health fairs throughout the San Antonio and South Texas Region.
c. The Department of Emergency Medical Technology sponsors a citywide educational program at a shopping mall at which citizens are taught Basic Life Support techniques.
d. Dental hygiene students and faculty conduct oral cancer screenings and topical fluoride application programs are conducted at area schools and centers.
e. A research project was completed by the Department of Respiratory Care which demonstrated that a disease management strategy, utilized by the respiratory therapist in the home, improved the health of children with severe asthma. The technique also reduced the economic impact of the disease by reducing the number of hospital days, emergency room visits, and office calls. This is prevention and health promotion.

f. Occupational Therapy provides community-based instruction on measure to prevent birth defects and the impact of deprived environments on the development of infants and young children.

g. Occupational Therapy and Physical Therapy provide community-based instruction on proper body mechanics at work to prevent work-related injuries.

h. Smoking cessation, weight control and diabetes management programs are conducted by allied health faculty and students.

2. What curriculum changes have been made in the areas of community and public health, epidemiology, population-based medicine, working in multi-disciplinary teams, and cultural competency? Does your institution have model programs in curriculum for any of the above?

Medical School:

Community and Public Health - Fourth year medical students have an opportunity to accomplish a four week elective with Dr. Claudia Miller, Associate Professor, Department of Family Practice. This elective stresses health concerns in the Texas/ Mexico border region and students have a first hand experience in public health and the environment in a community setting. First year students are paired with a community physician with whom they work one afternoon every five weeks.

The Family Practice Clerkship (mandatory six weeks) in the third year stresses preventive medicine and medical students must complete projects in this area.

Epidemiology - There is a mandatory six-week course in epidemiology for the fourth year medical students.

Cultural Competency – The Medical Hispanic Center of Excellence under the direction of Dr. Martha Medrano, is developing a curriculum for cultural competency. In addition, the first year medical students are introduced to this topic with example case scenarios. This occurs within the new Clinical Integration Course.

Dental School: We are in the process of a curriculum review. Before the review was undertaken, guiding principles for the Dental School curriculum were established by the Curriculum Planning Committee and endorsed by the faculty council. One of these principles states that the dental education program.... "will reflect a

philosophy of preventive oral health and health promotion for communities and individuals." As we evolve our curriculum, this guiding principle will be a goal.

School of Nursing: The School of Nursing undergraduate program curriculum has always had a semester long community health nursing course that focuses on community assessment, epidemiology, disease prevention, and cultural effects of health and illness. The undergraduate curriculum is currently under revision. A community-based curriculum is being developed.

The graduate nursing curriculum offers a number of community and public health focused programs and courses. The addition of the Master of Science in Nursing and Master of Public Health (MSN /MPH) dual degree graduate program major allows nurses in any clinical major to earn a MPH with fewer credit hours. Family Nurse Practitioner and Community and Health Care Systems in Nursing majors have coursework focusing on assessment of populations and communities. Family Nurse Practitioner and Pediatric Nurse Practitioner clinical major courses include objectives that focus on epidemiology and cultural competency. A graduate core course, Nursing Leadership, includes objectives on cultural competency and on multi-disciplinary teamwork. Elective courses are available to all graduate and undergraduate students: Pain Management, Death and Dying, Hispanic Health Care, Courses specific to several clinical majors that focus on population-based health care: Social Cultural Concepts in Public Health in the MSN/MPH major and Public Health Sciences in the Family Nurse Practitioner major.

School of Allied Health: Student clinical and fieldwork experiences have moved from tertiary care centers, such as hospitals, to include many more experiences with community-based health agencies. Such agencies include community health centers, public health clinics and agencies, environmental health agencies, skilled nursing facilities, home health care agencies, etc. However, it should be noted that allied health is experiencing major critical changes with agencies that have been faithful in providing student clinical instruction. The Balanced Budget Act of 1997, some managed care programs, and HCFA regulations have greatly affected the economic aspects of clinical instruction. Agencies have no incentive to participate in health professions student education. In fact, they will be economically penalized for having students in their facility. This has a direct negative impact on our educational programs.

The use of multidisciplinary teams is reflective of quality patient care. Students in allied health have opportunities to take core classes together, such as ethics and statistics. The faculty is now working on clinical assignments and affiliation agreements with agencies that will place students from various professions in the same environment for patient care. Due to the complication of multiple schedules for eight different departments, significant calendar changes need to be made for such clinical experiences to be successful. However, this is a necessary and integral part of the future curriculum for allied health professions students.

Cultural competency is critical in our community and in our educational programs. Such content is included in coursework and in clinical practice. Medical Spanish is a part of our educational efforts as an elective for those who do not speak Spanish.

Model Program: Respiratory Care has developed a model program for the management of asthmatic children. The program and model is being presented at the American Association of Chest Surgeons in October 1999. Texas Medicaid is now reimbursing respiratory care due to the success of this approach.

3. Has your institution implemented any new methods/programs for evaluating or testing the competency of health professionals in the above areas? Please describe.

Medical School: We have not implemented any new methods/programs for evaluating or testing health professionals.

Dental School: The Dental School requires dental students to demonstrate competency in obtaining and evaluating the medical history, taking and evaluating vital signs, and performing a complete head and neck exam including radiographs and a cancer-screening exam. They must be able to take all the information and make a diagnosis and develop a plan for management and/or referral. Students also must demonstrate competency, specifically, in assessing caries risk and periodontal disease and developing and implementing a prevention plan. Students must discuss with patients the findings, the recommendations for therapy, alternate treatment plans and risks and benefits for all options. Competency criteria have been developed and students are evaluated accordingly.

School of Nursing: The Masters program has developed criteria based on stated terminal objectives that evaluate therapeutic nursing interventions, communication, and critical thinking. These areas are evaluated at the end of the student's final clinical course by the student as self-evaluation, the supervising faculty, and the student's preceptor.

The undergraduate program is currently piloting a partnership program using competency based testing.

School of Allied Health: No new evaluation programs have been developed. The only exception is the measures used to assess the outcomes of disease management techniques for children with asthma.

4. Has your institution been able to increase its clinic and community-based training sites? For comparison purposes, document number and location of sites existing as of September 1999. What model programs does your institution have in this area?

Medical School: The only significant addition of clinical sites are the approximately 100 community physicians in San Antonio that teach first year medical students in their offices/clinics for five half-days per year.

Dental School: (See Table B-4.)

School of Nursing: Both the undergraduate and graduate programs have initiated model training programs:

The undergraduate nursing program has initiated a Bridge program at University Health Care System where students are paired with a Registered Nurse in a nursing area of their choice. These students are then usually hired to work at University Health Care System after graduation. Other similar partnerships that enhance student learning are in place at both the Methodist Health Care System and Hospice of San Antonio and South Texas.

Graduate nursing students have partnered with graduate students from the School of Public Health in a jointly taught community assessment course.

The School of Nursing had 231 student clinical and training sites/agencies in September 1996. In September 1999, there are 281 such sites/agencies.

Table B-4. Texas Statewide Health Coordinating Council Effort Report

4. Has your institution been able to increase its clinic and community-based training sites? For comparison purposes, document number and locations of sites as of September 1996 and number and location of sites existing as of September 1999. What model programs does your institution have in this area? None,

UTHSCSA DENTAL SCHOOL
CLINICAL & COMMUNITY-BASED TRAINING SITES

Training Site/Location	FY 1996	FY 1997	FY 1998	FY 1999
Alamo Area				
Clinical Training Sites	10	11	10	9
Hospital Training Sites	3	5	5	5
School-Based Training Sites	11	11	25	31
Community Agency Train Sites	0	1	3	3
Other/Private Practice Train Sites	N/A	40	82	88
Nursing Home Facility/Train Sites	3	2	1	N/A
University/Training Sites	2	2	1	0
WGB Area				
Clinical Training Sites	1	2	3	3
MRGB Area				
Clinical Training Sites	3	3	6	7
LRGV Area				
Clinical Training Sites	7	6	6	5
School-Based Training Sites	0	1	0	0
East Texas Area				
Hospital Training Sites	N/A	1	2	2
Other/Private Practice Train Sites	N/A	1	4	4
Southwest Texas Area				
Clinical Training Sites	0	0	0	2
Other Texas Area				
Clinical Training Sites	2	4	1	3
Other/Private Practice Train Sites	N/A	33	37	36
University/Training Sites	1	1	1	1

N/A = Not Available

School of Allied Health: The numbers of clinical and community-based training sites remain somewhat constant over time. In 1996, we had approximately 450 affiliation sites and in 1999 we have over 575. One reason for an increase includes the desire to move from hospital and tertiary care settings to community-based settings. The most influential reason numbers of community-based sites have increased is the inclusion of two new academic programs between 1996 and the present: respiratory care and physician assistant studies. The PA program alone has increased the number of preceptorship sites by about 58. They include community-based clinics and private physician practices. With the exception of occupational therapy and physical therapy, our clinical and community sites are throughout South Texas, including many border communities. OT and PT have clinical sites throughout the region and country. It should be noted that most certification, registration and licensure examination for allied health professionals include questions and scenarios related to community-based intervention programs, public health measures, epidemiology, and cultural competency.

5. Are your medical and nursing schools using the Agency for Health Care Policy and Research Putting Prevention Into Practice (PPIP) concepts and resources (e.g. Health Risk Profile)? How are they being used? PPIP materials can be accessed through the AHCPR website: www.ahpr.gov/ppip/.

Medical School: We have not yet begun to utilize the resources from the Agency for Health Care Policy and Research Putting Prevention Into Practice (PPIP).

Dental School: Not Applicable

School of Nursing: As part of Community Health Nursing course, every student plans and implements a teaching project in some area related to disease prevention, health promotion, and health education. Examples of such projects:

Nutrition for health and health promotion
Exercise for health promotion
Violence Prevention
Student teaching projects
Teaching bicycle helmet safety
Seat belt use

Teaching the importance of Immunizations for personal and public health
Breast self exam; Testicular self evaluation
Environmental safety
How each individual can contribute to preventing Ozone Days
Pesticide use and its effect to the individual, the environment, and the world
Testing water supply - people who use well water
Food safety

Nursing student association groups conduct volunteer projects that emphasize prevention and health promotion. For example, students from one nursing association mentor high-risk, low-income students in one elementary school. Their projects range from nutritional information and healthy eating habits to seat belt safety.

School of Allied Health: Not applicable at this time.

6. What state or legislative policy recommendations (besides increases in funding) would be instrumental in promoting the accomplishment of this Goal and Objective for the state of Texas?

Medical School: State or legislative policy recommendations are not necessary to accomplish this Goal and Objective for the State of Texas. These are important issues that will be addressed and accomplished.

Dental School: No Response

School of Nursing: Increased partnerships between educational institutions and community organizations like schools/ churches/ businesses/ and organizations such as Rotary Clubs and Chambers of Commerce.

Depending on the size of school district, there should be at least one school based health clinic with a nurse practitioner for every four schools.

School of Allied Health: Provide financial incentives, like tax credits, etc., for community-based health agencies and clinics to accept allied health students into their facilities for clinical and patient care instruction. This partnership has to be

solidified and enhanced if allied health education in Texas is to survive the many changes in federal regulation, etc. New ways of clinical instruction may have to be found. Provide targeted curriculum recommendations for the unique and common medical problems in Texas. Simplify the application process for all State-managed healthcare programs, i.e., CHIP, WIC, etc. Make needed health-related statistics easily accessible to educational programs and health care providers so that targeted efforts may be more easily measured and assessed. Healthy Community 2010 is a good example, but for our specific needs.

7. How would your institution use increases in funding to advance this Goal and Objective at your institution?

Medical School:
The Medical School would utilize increases in funding to hire faculty and staff in order to accomplish this Goal and Objective.

Dental School: No Response

School of Nursing: Increase in funding would allow the School of Nursing to establish school-based clinics where Family Nurse Practitioner and Pediatric Nurse Practitioner students could practice as well as teach. Undergraduate students could also use their clinics to practice health promotion and offer health promotion classes to students, parents and teachers. School based clinics are excellent sites for conducting clinical research. School of Nursing faculty can serve as consultants in the establishment of school-based clinics. School of Nursing Faculty and students could practice and teach in these clinics.

Increase research being conducted at the School of Nursing to determine the effectiveness of current educational/ prevention strategies and interventions.

School of Allied Health: Increases in funding would be used to conduct research concerning interdisciplinary primary and secondary intervention programs. For instance, we were funded in 1994 for a primary intervention program aimed at preventing diabetes in Mexican-American children. We had a variety of health professionals participating as well as Clinical Laboratory Science students A UT System program similar to the one they offer for grants in distance education could be very

helpful to get such programs off the ground or expanded. We would use additional funding to conduct more research studies on the relationship of disease management and overall health and prevention of sequelae to common diseases found in Texas. We need to conduct many more studies like the study conducted on children with asthma and diabetes. This is the key to allied health contributions in prevention and health promotion. It also provides economic savings to the state, payor and patients. Increase community-based educational programs with other educational institutions. UTHSCSA has an obligation for all of South Texas. The School of Allied Health Sciences would link with educational partners, like community colleges and other UT system institutions, to increase community-based health promotion efforts and community-based intervention projects. Hire an epidemiologist to work specifically with allied health faculty for evaluation efforts and research design to improve our efforts. Several UT allied health schools could share such a person. We could communicate through technology, etc., but the expertise is needed. Costs could be kept to a minimum.

UNIVERSITY OF TEXAS MEDICAL BRANCH IN GALVESTON:
School of Medicine
Preventive Medicine and Community Health
School of Nursing Baccalaureate Program and Master's Nursing Program
School of Allied Health Sciences

1. What efforts/initiatives have been taken to emphasize prevention in your institution's health professions education and training?

Medical School: The Master of Science Program in Preventive Medicine and Community Health (PMCH) has been remodeled to meet the accreditation criteria of the Council on Education in Public Health (CEPH) as an MPH equivalent. This program in public health emphasizes population-based approaches to promoting community health and is oriented to preparing physicians in our three Preventive Medicine Residency Programs along with selected other licensable health professionals such as nurses.

The department's CATCHUM Project is a consortium of the eight Texas Medical Schools dedicated to educating undergraduate medical students about cancer prevention and screening. Based at the University of Texas Medical Branch Educational Cancer Center and the Department of Preventive Medicine and Community Health, the CATCHUM Project is funded by the National Cancer Institute (Grant # 1 R25 CA65618). It provides, through the Internet (hftp://www.catchum.utmb.edu/index.htm) traditional educational resources on various topics in a variety of formats ranging from lectures to problem-based learning. Assessment and evaluation materials are also located on the web page ranging from objective knowledge tests to objective structured clinical examinations. Faculty development programs are offered annually on pertinent topics (clinical preceptor training in 1999) and links to and other resource materials are available for downloading.

- The Graduate Program in Preventive Medicine and Community Health has established curricula in Environmental Toxicology, Socio-medical Sciences, Human Nutrition, Compartmental Modeling, Rehabilitation Science, Clinical Science, and Preventive Medicine (MPH Equivalent). In addition to its regular

courses, the program offers short courses in Aerospace Medicine, Occupational Medicine, and Correctional Health. Routine Grand Rounds are presented in Aerospace Medicine, Occupational Medicine, and General Preventive Medicine. In the Medical School, much of the material presented in the traditional Department based course has been integrated into the *Practice of Medicine* course, which runs throughout the entire first two years of the curriculum. The Environmental Toxicology material presented in the traditional course is now included in the *Pathobiology* Course.

- PIVICH sponsors and participates in several initiatives that emphasize the importance of prevention and public health strategies in health professions training.
- The *Commit to Quit* program provides strategies for smoking cessation through classes and individual counseling, and also provides education for health professionals and the general public on the dangers of smoking and smoking cessation.
- PIVICH has collaborated with the Galveston Partnership for Better Living, a community-based non-profit organization, to develop a "Children's Report Card" and a "Seniors' Report Card" that provide valuable statistical and demographic information used by health care professionals to improve the health of targeted groups in the community.
- The Department also sponsors the "Galveston Safety Net", an internet-based social and health care services directory that is used by local health care providers for resource and referral.
- PMCH, in cooperation with the Department of Surgery, has developed an Injury Prevention Program that routinely provides information to health professionals, students and the general public.
- Our Toxics Assistance Program has collaborated with the East Texas Area Health Education Centers (AHEC) under a contract from the Agency for Toxic Substances and Disease Registry (ATSDR). Through this project, a curriculum was developed for one-day workshops to educate physicians and other primary health care providers on issues related to diagnosis, prevention and treatment of illnesses caused by exposure to toxic substances in the environment.
- PIVICH sponsors the "Tar Wars" program for Galveston Independent School District 5th Grade classes, in cooperation with the Texas Department of Health and the American Academy of Family Physicians. While the program targets

smoking prevention for students, it also provides training for schoolteachers, counselors and administrators.

School of Nursing:

- The baccalaureate nursing course, *Nursing: The Community*, emphasizes a shift from care at the individual and family level to aggregate level care and program planning. The focus of planning care and programs for aggregates is primary prevention. The levels of prevention are emphasized in this course and in other senior nursing level courses as well, such as mental health nursing, but are introduced in the early phases of the baccalaureate-nursing curriculum as well.
- The Master's Program for nurse practitioners in primary care has had a strong health promotion and community component for over ten years. It is considered a "pioneer" program for this emphasis. All students enrolled in the primary care track complete a community assessment, analyze the data, develop a program plan, and prepare a proposal for funding of the proposed program. This process is continued over a one-year period in conjunction with the clinical application courses.

School of Allied Health Sciences: The SAHS programs have incorporated units of health/prevention issues in to many of their courses. Students participate in community activities to foster prevention e.g. health fairs.

2. What curriculum changes have been made in the areas of community and public health, epidemiology, population-based medicine, working in multi-disciplinary teams, and cultural competency? Does your institution have model programs/curriculum for any of the above?

Medical School: Starting in the fall of 1998, the Medical School initiated a problem based learning curriculum that replaced a lecture-based curriculum with one that uses small groups, minimal lectures, and a variety of other student directed learning activities. This provided the opportunity to take the Preventive Medicine topics that were primarily taught in a ten week concentrated block to be integrated into the entire first two years of medical school education. For example, this meant that topics such as Smoking Prevention and Cessation could be taught in the context of the study of the pulmonary system. Within the *Practice of Medicine* course,

biostatistical topics that permit students to appreciate and critically read the medical literature are presented early on, rather than at the end of the second year in the PM&CH course block. The Environment Toxicology section of the PM&CH course block is now presented as part of the Patho-biology course. The goal is to integrate Preventive Medicine topics into the curriculum so they are introduced as a natural part of the practice of medicine rather than a distinct stand-alone topic that could be compartmentalized outside the mainstream of medical practice.

Course Title: *Epidemiology in Action* (Graduate School of Biomedical Sciences)

Description: This course is a bifurcated course with lectures provided by experts in the field of public health practice affiliated with the Centers for Disease Control and Prevention through Emory University. This segment will cover the following topics: Descriptive epidemiology and biostatistics, Analytic epidemiology, Epidemic investigations, Public Health surveillance, Interpretation and communication of data, Surveys and sampling, Computers and Epidemiologic Information training, and Discussions of selected prevalent diseases. In conference and discussion, these topics will be expanded to cover operational aspects of epidemiologic investigations, interventions, the communication of findings particular to the public and media outlets, and special topics such as investigations in health care facilities, childcare environments, and international venues.

Learning Strategies: The text to be used in the first segment is *Epidemiology of Public Health Practice* by Friis/Sellers. Each presenter will individually distribute handouts and articles on specific topics. The text to be used in the second segment is *Field Epidemiology* by Gregg. Case study problems on epidemiology and surveillance will be worked-on and facilitated by MD/Epidemiologists at CDC, UTMB - Galveston, or the Galveston Health District. Status: New elective course. Offered: Fall, annually

Course Title: *Community Health Practice* 1 - 2 credits (fall - semester) & *Community Health Practice* 2 - 2 credits (spring - semester) (Graduate School of Biomedical Sciences)

Description: The expectation is that the student will integrate the information learned in the academic curriculum in the context of a hosting organization that

is concerned with an aspect of public health in various environments such as communities, workplaces, or institutions. This will be accomplished through systematic analysis of issues, incorporation and appropriate use of data, and applications of subject matter expertise contained in the MPH equivalent curriculum (such as biometry, epidemiology, social and behavioral sciences, management and policy sciences, and environmental sciences). Learning Strategies: Lecture, discussion. Status: New required course Offered: Fall & Spring, annually

Course Title: *Issues in Preventive Medicine and Public Health* (Graduate School of Biomedical Sciences)

Description: This course is designed to provide theoretical and practical information that will prepare the student to participate in leadership roles in the delivery of modern population-based preventive services and public health programs. Learning Strategies: Lecture, discussion Status: Remodeled required course Offered: Spring, annually

School of Nursing: Baccalaureate nursing education has a long history of including public health concepts as part of the curriculum. The current baccalaureate-nursing curriculum includes community/public health concepts such as epidemiology, population-based nursing, working with interdisciplinary teams, and attention to cultural competence. The public health nursing course, *Nursing: The Community*, requires students to conduct a community assessment and plan a primary prevention project based on identified community needs. A poster session highlights their proposed intervention project at the end of the course. Last year (1999), three baccalaureate-nursing students attended the American Public Health Association meeting in Washington, DC and participated in the Public Health Nursing Section student poster session. Two of the UTMB student posters received first and second place student poster awards.

Another example is a learning strategy highlighting work with interdisciplinary teams in the Rehabilitation and Home Health course. In this course, students visit patients in their home and work with the inpatient interdisciplinary team to coordinate care and follow-up.

The Master's program for nurse practitioners in primary care includes community and public health, epidemiology, population-focused practice, working with multidisciplinary teams, and a focus on cultural competency. Much of this content is incorporated into the three-course sequence, *Community as Partner*, which includes the process of working with the community to determine needs and strengths and developing a program to address those needs. These courses have been part of the curriculum of over ten years. The sequence of courses serves as a model for nurse practitioner programs across the U.S. The courses are being used in a National Organization of Nurse Practitioner Faculty (NONPF) project to determine how to integrate such content into all nurse practitioner education.

In order to make the course more accessible to our numerous commuter students (we've had commuters from El Paso to New Orleans and from Nacogdoches to Laredo), the three-course community health sequence was adapted for delivery on the worldwide web last year. All students who take the course now do so on the web. To date outcomes of theses courses are similar to the traditional classroom, face-to-face, method.

School of Allied Health Sciences: The SAHS has completed an 18-month project "Curriculum 2000 Taskforce." This taskforce identified common competencies in these areas needed by all health providers. The next phase is implementation of these competencies across the school curriculum. Programs used interdisciplinary case histories for discussion.

3. Has your institution implemented any new methods/programs for evaluating or testing the competency of health professionals in the above areas? Please describe.

Medical School: The CATCHUM Project has an online testing service in the area of cancer epidemiology, risk factors, prevention, and clinical detection and screening. Learners log on take an objective knowledge test and receive a score with a reading list linked to concepts that need remediation. Additionally, there are Objective Structured Clinical Examinations on the 13 most prevalent cancers seen in clinical encounters that allow assessment of competence in clinical prevention and screening.

School of Nursing: No. Evaluation is primarily at the course level; however, long-term follow up of graduates would illustrate the use of the community-focused

concepts in practice. The date, such information is anecdotal (e.g., the graduate whose first assignment at her new position in the Valley was to do a needs assessment and write a grant which she did successfully. Or the graduate in El Paso whose needs assessment lead to the opening of a clinic for indigent children).

4. Has your institution been able to increase its clinic and community-based training sites? For comparison purposes, document number and location of sites as of September 1996 and number and location of sites existing as of September 1999. What model programs does your institution have in this area?

Medical School: The Piney Woods AHEC and The Department of Preventive Medicine and Community Health at UTMB-Galveston are partners in developing a community based cancer prevention and early detection model program for rural East Texas. The Community-based Cancer Prevention and Control Program is a pilot program funded by the Texas Cancer Council. The program is being delivered at work sites through a network of employers. One employer in each of four targeted counties has been selected to participate in the pilot program. Cancers targeted by the program include lung, breast, prostate, colorectal, and skin. The project addresses the need for the adoption of more healthful lifestyles and habits of daily living and includes educational programs on tobacco cessation, nutrition, alcohol/drug use, stress/coping, sun awareness, and screening. A cancer health risk assessment is also being given to employees at each site and is being used to help tailor cancer prevention programs specific to each company and as a baseline assessment measure. In addition, the program includes a parallel continuing education program for health care providers aimed at increasing cancer detection activities by promoting age, gender, and ethnicity specific screening appropriate to the needs of the participants.

The PIVICH *Commit to Quit* smoking cessation program provides community based "train the trainer" training sessions through a partnership with the East Texas AHEC program. Health care professionals are trained to conducting smoking cessation programs in their local communities.

PMCH, in cooperation with the Department of Surgery, provides programs and presentations on injury prevention to community-based health professionals through our Injury Prevention Program.

The following community-based training sites support our Preventive Medicine Residency Program:

Table B-5. Aerospace Medicine Residency Program

Practicum Phase Rotations

1. NASA/Johnson Space Center
2. Kelsey-Seybold
3. Federal Aviation Administration, Civil Aeromedical Institute
4. Brooks Air Force Base, San Antonio
5. Garratt's Flying Service
6. United Airlines
7. Texas Department of Health
8. US Coast Guard Air Station Houston
9. Yale University
10. Delta Airlines
11. Kennedy Space Center

General Preventive Medicine Residency Program

Practicum Phase Rotations

1. Public Health Rotation with Texas Department of Health in Austin
    - A. Communicable Disease Control
    - B. Chronic Disease
    - C. Environmental Health and Consumer Protection
    - D. Epidemiology - POC's
    - E. Public Health Administration
    - F. Public Health Clinic Operation
2. Galveston County Health Department
3. Occupational Medicine at NASA Kelsey-Seybold Clinic
4. TDCJ Hospital
5. Rotations in outlying units of TDCJ
    - A. Primary Care prison unit
    - B. Prison psychiatry
    - C. Women's prison health care
6. Jail Medicine at the Harris County Jail
7. Texas Department of Health, Public Health Rotation, Region 5 & 6
8. University of Texas Health Science Center at San Antonio

Occupational Medicine Residency Program

Practicum Phase Rotations

1. Exxon
2. University of Texas Health Science Center at Tyler
3. Institute for Rehabilitation and Research
4. Kelsey-Seybold

School of Nursing: Our clinical training sites have remained relatively stable for the past three years. We utilize public health departments, school health programs, and occupational health sites in Galveston and Harris counties. A few of the sites are listed below:

Occupational Health Sites

Union Carbide Health Services
Oxychem - Bayport
Oxychem - Chocolate Bayou
Oxychem - Pasadena
NASA, Occupational Medicine Clinic
El Paso Energy Company
Sterling Chemical Company
Amoco Chemical Health Services, Chocolate Bayou
Lubrizol Company
Goodyear Tire and Rubber

School Sites

Hitchcock Independent School District
La Marque Independent School District
Galveston Independent School District
Clear Creek Independent School District
Friendswood Independent School District
Santa Fe Independent School District
Dickinson Independent School District
Angleton Independent School District
Pasadena Independent School District

Health Department Sites

Galveston County Health Department
Harris County Health Department

School of Allied Health Sciences: SAHS has over 600+ affiliation sites throughout Texas. This number of sites has been approximately the same for the last year. Underserved and rural areas have been reached by offering some web-based programs.

5. *Are your medical and nursing schools using the Agency for Health Care Policy and Research Putting Prevention Into Practice (PIP) concepts and resources (e.g. health Risk Profile)? How are they being used? PPIP materials can be accessed through the AHCPR website: www.ahcpr.gov/ppip*

Medical School: The Texas Department of Health, Texas Medical Association, and Blue Cross & Blue Shield of Texas have established a partnership oriented to providing training and technical consultation to prepare clinical environments that would serve as appropriate learning sites for health professions students. This preparation based on a train-the-trainer model includes preparing a significant number of clinicians and other staff to serve as preceptors and mentors in prevention oriented health professions education. This initiative has been led by faculty in the department.

School of Nursing: Not at the baccalaureate level. However, these concepts are being incorporated into graduate nursing courses. Most definitely being used in the primary care nurse practitioner program. In fact, one of our faculty served on a committee to develop the PPIP guidelines. Students use the Guide to Clinical Preventive Services as well as the health risk profile as an integral part of their practice.

School of Allied Health Sciences: The SAHS Physician Assistant Studies program is using the above policies.

6. What state or legislative policy recommendations (besides increases in funding) would be instrumental in promoting the accomplishment of this Goal and Objective for the State of Texas?

Medical School: Tax incentives for HMOs to provide prevention-training sites for health professions students. Require HMOs to provide more health promotion and disease/injury prevention services.

S**chool of Nursing:** Health promotion and primary prevention services for mental and physical health available for all residents of the state.

School of Allied Health Sciences: Increase efforts to recruit students from all areas of the state particularly the rural and underserved. Assist or support students from rural areas. Increase our utilization of telemedicine and partnership with clinical affiliates.

7. How would your institution use increases in funding to advance this Goal and Objective at your institution?

Medical School: Faculty recruitment, faculty development, infrastructure - Web-based design and distance learning.

Nursing School: The recruitment of faculty with strong public health backgrounds or the development of faculty currently at UTMB to interface with community sites for the promotion of health promotion and primary prevention goals.

School of Allied Health Sciences: Funding could be used for: 1) increasing technical means of communication to remote areas; 2) increase utilization of telemedicine; 3) support student housing and travel costs in rural areas and to sites for prevention screening activities.

THE UNIVERSITY OF TEXAS
SOUTHWESTERN MEDICAL CENTER AT DALLAS

1. What efforts/initiatives have been taken to emphasize prevention in your institution's health professions education and training?

Preventive education is integrated into all four years of the medical school curriculum, beginning with the first year *Introduction to Clinical Medicine* course. Prevention is an important component of care in the primary clinical areas where medical students and residents receive clinical training. An NIH grant has been received to increase teaching in cardiovascular preventive nutrition and is being implemented.

2. What curriculum changes have been made in the areas of community and public health, epidemiology, population-based medicine, working in multi-disciplinary teams, and cultural competency? Does your institution have model programs/curriculum for any of the above?

UT Southwestern has made public health a very visible and important part of the University with implementation in September 1998 of an on-campus satellite branch of the UT Houston School of Public Health, offering curriculum and programs leading to the Master of Public Health (MPH) degree. This program has substantially enhanced the numbers of both public health faculty and students, and is becoming the base for public health affiliations with medical school departments and faculty in education, research, and community service.

Another important element in community health is the teaching hospital affiliation with Parkland Memorial Hospital, and its program of Community Oriented Primary Care (COPQ clinics throughout the Dallas community. The COPC's are a teaching and clinical care resource for medical school faculty and students.

3. Has your institution implemented any new methods/programs for evaluating or testing the competency of health professionals in the above areas? Please describe.

UT Southwestern makes extensive use of objective structured clinical examinations (OSCE's), which incorporate prevention. The Medical School has implemented a

pre- and post- knowledge exam on prevention for the ambulatory internal medicine course.

4. Has your institution been able to increase its clinic and community-based training sites? For comparison purposes, document the number and location of sites as of September 1996 and the number and location of sites existing as of September 1999. What model programs does your institution have in this area?

The use of community sites varies widely across curricular and specialty lines. Data is being developed to examine extent and effectiveness in the fields of internal medicine, family practice, obstetrics- gynecology, and pediatrics.

5. Are your medical and nursing schools using the Agency for Health Care Policy and Research Putting Prevention Into Practice (PPIP) concepts and resources (e.g. Health Risk Profile)? How are they being used? PPIP materials can be accessed through the AHCPR website: www.ahcpr.gov/

The Medical School uses the Putting Prevention Into Practice (PPIP) materials extensively in family practice residency training programs and student clerkships.

6. What state or legislative policy recommendations (besides increases in funding) would be instrumental in promoting the accomplishment of this Goal and Objective for the state of Texas?

The Legislature has studied for several years the development of a formula-based funding system for health sciences education including state funding for graduate medical education (GME) training programs. Implementation of this system would provide incentives for medical schools to concentrate on outcomes measures as opposed to process volume measures, and would help the “preventive medicine” initiative in the long run.

7. How would your institution use increases in funding to advance this Goal and Objective at your institution?

Further implementation is often a funding issue. The key element is protected faculty time to develop and implement curriculum, in this instance for both classroom and clinic-based programs in prevention.

TEXAS TECH UNIVERSITY HEALTH SCIENCE CENTER:
Medical School
School of Nursing

1. What efforts/initiatives have been taken to emphasize prevention in your institution's health professions education and training?

Medical School: In the medical school curriculum, TTUHSC addresses prevention throughout the four-year medical student curriculum via several different courses by several different departments. For instance, in the first year, students receive four hours of lecture on assessment and intervention regarding sedentary lifestyles, poor nutrition, and nicotine abuse. The second year curriculum includes a total 27 lecture hours on risk factors associated with chronic diseases, along with prevention and screening. The Pathology course offered during this second year delivers approximately sixteen hours of lectures and case conferences, including a review of preventive factors including diet, tobacco, exercise, atherosclerosis and cholesterol. An additional 18 hours are offered during the third year to the clerkship students in Internal Medicine, Family Medicine, and Pediatrics. The 4th year students in each of these programs receive additional training in the prevention, diagnosis, treatment, and management of chronic diseases.

The Department of Family and Community Medicine is especially proud of its efforts to promote physician behavior aimed at addressing smoking cessation among clinic patients. Under the direction of Dr. C. Alvin Jones, the Department researched and implemented a process aimed at training residents to understand the benefits of smoking cessation to the patients' health, and to provide residents with both skills and on-going system support so they can help their patients become non-smokers. Results of this project were presented at meetings of the Society of Teachers of Family Medicine and the Texas Academy of Family Physicians.

The TTUHSC is involved in a variety of ongoing community outreach programs that address chronic diseases. A number of faculty members are involved with the local chapter of the American Heart Association and serve on its speaker's bureau. A joint conference with the American Heart Association is planned for this fall and will focus specifically on issues related to diet, medication, and exercise in the prevention of diabetes and CVD among Hispanics. Likewise, a number of our Kellogg

sites are emphasizing the prevention of hypertension among Hispanics, and students at these clinics have gone into the local high schools and junior high schools to address tobacco use prevention.

2. What curriculum changes have been made in the areas of community and public health, epidemiology, population-based medicine, working in multi-disciplinary teams, and cultural competency? Does your institution have model programs/curriculum for any of the above?

Medical School: The Texas Tech University School of Medicine (TTUSOM) has modified the curriculum to provide clinical experiences for 1st year students. Classroom lectures are combined with a series of rotations with community preceptors in ambulatory primary care offices. Students learn to obtain a health history, understand the social/family/cultural context of illness, and begin to develop patient education/counseling skills to intervene in modifying behavior. These students learn the importance of understanding the epidemiology of diseases within a community/ practice population. They learn the importance for physicians to know and work with available community resources in a multidisciplinary approach to patient care. These concepts are reinforced in preventive medicine lectures/exercises in year one and in epidemiology/biostatistics lectures in year two. We believe that the first year ICARE (Integrated Community Ambulatory & Related Experiences) is a model program in these areas.

School of Nursing: In 1996 the School of Nursing revised its curriculum to include additional community-based health care activities. The original community health course was split into two courses. The first course is theory-based and includes an emphasis on epidemiology; the second course is clinical and focuses on implementation. The upper level courses in Management and Leadership both emphasize the importance of working with other health care professionals as part of a multi-disciplinary team. Senior nursing students participate in a preceptorship with a nurse manager in an agency and actually "shadow" the nurse manager as he or she works on a team.

A Health Assessment course has also been added to the School of Nursing curriculum to train students in conducting risk profiles for clients birth to end of life. Additional community health care activities have been added in the areas of Maternal/Child

Health and Psychiatry. Students address prevention issues through their participation in well-baby and prenatal clinics. They also attend activities like local Alcoholics Anonymous meetings for training in issues surrounding alcohol and drug abuse.

In addition, the Texas Tech University Health Sciences Center and the University of North Texas Health Sciences Center are in the beginning states of developing a joint distance education program leading to the Masters in Public Health. Further details will be made available as plans for the degree program progress.

3. Has your institution implemented any new methods/programs for evaluating or testing the competency of health professionals in the above areas? Please describe.

Medical School: In the School of Medicine, no new methods/programs for evaluations have been implemented yet but the planning committees for ICARE and Preventive Medicine/Biostatistics/Epidemiology will be working to develop objective tools for evaluation. Currently, course content in Preventive Medicine/ Epidemiology/Biostatistics is evaluated using multiple-choice questions in a UMSLE format.

School of Nursing: The School of Nursing has implemented a midlevel exam during the sophomore year, in addition to the comprehensive exit exam given during the senior year.

4. Has your institution been able to increase its clinic and community-based training sites? For comparison purposes, document the number and location of sites as of Sept. 1996 and the number and location of sites existing as of September 1999. What model programs does your institution have in this area?

Medical School: In September 1996 TTUSOM participated in the Statewide Preceptorship Program and used approximately 15 community local preceptors. With the implementation of ICARE, we are now using approximately 60 community preceptors.

5. Are your medical and nursing schools using the Agency for Health Care Policy and Research Putting into Practice (PPIP) concepts and resources (e.g. Health Risk Profile)? How are they being used? PPIP materials can be accessed through the AHCPR website.

Medical School: The Department of Family and Community Medicine at TTUHSC received funding from the Texas Department of Health to implement the U.S. Preventive Task Force Guidelines on Prevention into its teaching clinics. Also known as "Putting Prevention Into Practice," these guidelines focus largely on risk factors for CVD and provide opportunities for both medical students and patients to benefit from an increased emphasis on health promotion and disease prevention.

6. What state or legislative policy recommendations (besides increases in funding) would be instrumental in promoting the accomplishment of this Goal and Objective for the state of Texas?

General Response: In order to promote the accomplishment of the stated Goal and Objective, the state needs to adopt policies that would encourage and provide incentives for the expansion of new technologies in health care and telecommunications, especially those policies benefiting the elderly and residents of rural areas.

An example of such a policy would be telemedicine reimbursement for education and prevention, such as diabetes education and smoking cessation.

Academic medical centers have traditionally been tertiary care centers with a focus on medical care to the ill rather than on using prevention and education to achieve optimal health. Policies that ask for measured proof of graduate's competencies would be a key in changing institutional focus. Collection and publication and data comparing successes could foster competition and extra efforts to avoid a bottom ranking. A policy recommendation establishing a minimum number of hours of faculty contact during each year of medical and resident education would help to ensure attention to this area.

7. How would your institution use increases in funding to advance this Goal and Objective at your institution?

General Response: An increase in funding would enable TTUHSC to increase its efforts in education and prevention in four targeted areas:

1) Aging
2) Rural Health
3) Diabetes
4) Border Health

Increased funding could be used to develop innovative programs in these areas. Funding should allow purchasing of model materials from established successful programs. Additional faculty would be helpful to implement new program initiatives, possibly with funding for faculty at the four regional campuses.

UNIVERSITY OF NORTH TEXAS HEALTH SCIENCE CENTER AT FORT WORTH:
Texas College of Osteopathic Medicine
School of Public Health

1. What efforts/initiatives have been taken to emphasize prevention in your institution's health professions education and training?

Several major initiatives have been taken to emphasize prevention at the University of North Texas Health Science Center at Fort Worth. A graduate degree program in public health was established in 1995 and expanded to include the creation of a School of Public Health (SPH) in September 1999. The SPH will be instrumental in implementing prevention efforts across all health professional training programs at UNT Health Science Center. A major collaborative effort involves the DO-MPH program, in which students at the Texas College of Osteopathic Medicine (TCOM) will be able to acquire a master's degree in public health while undertaking the medical curriculum. Further, the SPH will result in the training and placement of public health professionals across the state of Texas. The Health Sciences Library has also committed to increasing its holdings in books, journals, and media in support of our expanded public health curricula.

2. What curriculum changes have been made in the areas of community and public health, epidemiology, population-based medicine, working on multi-disciplinary teams, and cultural competency? Does your institution have model programs/curriculum for any of the above?

Several new programs have been established in these areas at UNT Health Science Center. Curricula in public health have been greatly expanded with the establishment of our graduate program in public health and its expansion to the SPH. Within the SPH, track 4pecializations exist in community health, epidemiology, and six other areas. There are also dual degree programs involving collaborations among public health, medicine, dentistry, and other health professions. These curricula address a broad spectrum of areas in public health, including population-based medicine, working on multidisciplinary teams, and cultural competency. In addition, a new medical curriculum is being implemented at TCOM, with a major expansion in

content relative to public health, population-based medicine, epidemiology, evidence-based medicine, and cultural competency in interacting with patients.

3. Has your institution implemented any new methods/programs for evaluating or testing the competency of health professionals in the above areas? Please describe.

Several programs have been used to help test the competency of health professionals in the above areas. In preparing for re-accreditation by the Joint Commission for the Accreditation of Healthcare Organizations, UNT Health Science Center has implemented regular evaluation of its health care professionals for quality improvement purposes. These quality programs place substantial emphasis on preventive medicine and related competencies, such as multi-disciplinary teamwork and cultural sensitivity. With the implementation of a new medical curriculum at TCOM, new programs for testing the competency of medical students have been developed. These evaluations focus on creating valid and reliable measures of student performance, using highly practical clinical scenarios. Further, with the establishment of the SPH and the Physician Assistant (PA) program, novel programs for evaluation of public health professionals and physician assistants are currently being developed and refined.

4. Has your institution been able to increase its clinic and community-based training sites? For comparison purposes, document number and location of sites as of September 1996 and number and location of sites existing as of September 1999. What model programs does your institution have in this area?

UNT Health Science Center has been able to increase its clinic and community-based training sites over the last three years. The curricular expansion in public health over these years has resulted in numerous clinic and community agency collaborations through the placement of students in practical field study projects, capstone course assignments, program planning and evaluation, and student performance of independent study, special problems, and thesis research projects. Clinically, major increases in patient volume have been realized through affiliations with local health departments and Federal prison programs. There is no formal database that provides a specific comparison of September 1996 and September 1999.

5. Are your medical and nursing schools using the Agency for Health Care Policy and Research Putting Prevention Into Practice (PPIP) concepts and resources (e.g. Health Risk Profile)? How are they being used? PPIP materials can be accessed through the AHCPR website: www.ahcvp.gov/ppip

TCOM students at all levels are being exposed to PPIP concepts. First- and second-year students receive classroom education in these and related concepts. In addition, they receive instruction on the findings of the U.S. Preventive Services Task Force, as disseminated in the *Guide to Clinical Preventive Services.* Further, they receive instruction in population-based medicine and communicable disease control using the resources provided by the Texas Department of Health. Third- and fourth-year students in primary care clinical rotations receive additional reinforcement of these concepts.

6. What state or legislative policy recommendations (besides increases in funding) would be instrumental in promoting the accomplishment of this Goal and Objective for the state of Texas?

The accomplishment of this Goal and Objective for the state of Texas may be promoted in several ways. First, the Texas Department of Health may wish to increase student accessibility of its prevention-related resources by increasing the online availability of these documents. Second, institutes of higher education may be induced to put greater emphasis on their prevention curricula by reallocating funding to those programs that provide educational programs in support of the Goal and Objective. This would not require an increase in funds, but rather a shift in funding from those programs with an emphasis on treatment to those with an emphasis on prevention. Third, legislative incentives may be provided for collaborations of academia with government, philanthropic organizations, and various industries, such as managed health care, pharmaceuticals, etc.

7. How would your institution use increases in funding to advance this Goal and Objective at your institution?

At UNT Health Science Center, this Goal and Objective could be advanced in several ways with increased funding. First, educational resources may be purchased or upgraded to support these programs. Second, faculty development programs may be provided. Third, additional student training programs may be established, including a Public Health/ Preventive Medicine residency, new dual degree programs involving public health and preventive medicine, continuing education programs, and health professional development programs.

EXHIBIT B-1

CURRICULAR GOALS AND OBJECTIVES FOR TEXAS A&M UNIVERSITY SYSTEM HEALTH SCIENCE CENTER COLLEGE OF MEDICINE (TAMUSHSC-COM) 1999

(As Approved by the Academic Council, September 2, 1999)

Medicine in general, and medical education in particular, must always be responsive to scientific developments, changing practice patterns, and evolving societal needs. It is critical that medical educators understand and respond appropriately to these changes. As part of the ongoing process of monitoring and upgrading the medical curriculum of the TAMUHSC-COM, the curricular goals and objectives described in this document have been established to reflect the changing parameters described above. Likewise, maintenance of the historically high quality medical training our students receive at the TAMUSHSC-COM is of paramount importance in the ongoing process of curricular improvement.

To accomplish concomitantly the described goals of meaningful curricular improvement and maintenance of high academic standards, the goals and objectives described below for the TAMUSHSC-COM medical curriculum are based on the following:

- The guidelines set forth within the Medical School Objectives Project (MSOP), which were published by the Association of American Medical Colleges (AAMC) in 1998;
- The unique curricular requirements of the TAMUSHSC-COM, based both on historical mission objective and the expanding role of the COM in providing the best possible health care to all citizens of the state of Texas.

The College of Medicine will develop the necessary pedagogy and the appropriate assessment methods to ensure that the students have attained the knowledge, abilities, and characteristics outlined in this document, and at the level of competency set by the faculty. To ensure that these goals are met, the faculty will do the following:

- Develop specific, integrated, educational objectives to be attained by our medical students at defined points within the curriculum;
- Ensure that the objectives are system-oriented rather than discipline-based, and are consistent with: 1) those outlined in the MSOP document, 2) the Goals and Objectives set forth in this document, and 3) the recommendations of the Dean's Committee on Curriculum, which were adopted by the Academic Council on December 3, 1998 as COM policy;
- Identify, develop, and implement appropriate testing methods to ensure attainment of stated educational objectives;

- Impart to the students the required professional knowledge, skills, and attributes using methods that will include, but not be restricted to, individual faculty contact and mentoring, role modeling, computer-based programs and simulations, self-directed learning, small group sessions, problem-based learning, case-based teaching, lectures, and laboratory and clinical experiences.

The College of Medicine must ensure that graduating students possess a modern, relevant, integrated scientific knowledge base and be able to apply that knowledge to the practice of medicine. To ensure the acquisition of this knowledge base, each student will demonstrate, to the satisfaction of the faculty, the following:

- Knowledge of the normal structure and function of the major organ systems of the human body, and how these major organ systems interact;
- Knowledge of the molecular, biochemical, cellular, and system-specific mechanisms that are essential to the maintenance of homeostasis;
- Knowledge of the various causes (genetic, developmental, psychologic, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative and traumatic) of maladies that afflict humans, and the mechanisms for their effects (pathogenesis);
- Knowledge of the altered structure and function (pathology and pathophysiology) of the body and its major organ systems that are seen in various diseases and conditions;
- An understanding of, and ability to use, the scientific method in establishing 1) the causation of disease and 2) the efficacy of traditional and nontraditional therapies.

The College of Medicine must ensure that each student develop the requisite clinical skills of an undifferentiated physician. To ensure that this goal is met, each student will demonstrate, to the satisfaction of the faculty, the following:

- The ability to obtain an accurate and complete medical history that covers all essential aspects including issues related to age, gender, and socioeconomic status;
- The ability to perform both a complete and an organ-system specific examination, including a mental status examination;
- The ability to perform routine technical procedures, including the following: venipuncture, insertion of an intravenous catheter, arterial puncture, thoracentesis, lumbar puncture, insertion of a nasogastric tube, insertion of a urethral catheter, and suturing lacerations;
- The ability to interpret the results of commonly used diagnostic studies;
- Knowledge of the clinical, laboratory, radiologic, and pathologic manifestations of common maladies;
- The ability to combine knowledge base, investigative skills, and deductive reasoning to be proficient in clinical problem solving;
- The ability to construct appropriate diagnostic and therapeutic management strategies for patients with common acute and chronic medical, surgical, and psychiatric conditions, and those requiring both short and long-term rehabilitation;
- The ability to recognize and outline an initial course of management for patients with serious conditions requiring critical care;

- Knowledge of the causative factors of pain, the relief of pain and ameliorating the suffering of patients with pain;
- The ability to listen attentively and communicate effectively, both orally and in writing, with patients, patients' families, colleagues, and others with whom physicians must exchange information in carrying out their clinical responsibilities.

The College of Medicine must ensure that graduating medical students possess the necessary altruism and professional characteristics to render compassionate and empathic care to their patients. To ensure the acquisition of these characteristics, the students must demonstrate, to the satisfaction of the faculty, the following:

- Knowledge of the historical, legal, religious, and cultural aspects of medicine and the development of an appreciation for past and contemporary social and trans-cultural issues;
- Development of moral reasoning skills derived from the principle of justice for all;
- Knowledge of the theories and principles that govern ethical decision making and the major ethical dilemmas in medicine, particularly those that arise at the beginning and end of life, and those that arise from the rapid expansion of medical knowledge;
- Compassionate, non-judgmental treatment of patients, and respect for their privacy and dignity;
- Honesty and integrity in all interactions with patients' families, colleagues, and others with whom physicians must interact;
- An understanding of, and respect for, the roles of other health care professionals, and of the need to collaborate with them in caring for individual patients, and in promoting health;
- A commitment to advocate, at all times, the interests of patients over self;
- An understanding of the threats to medical professionalism posed by the potential conflicts of interest inherent in some financial and organizational arrangements in the practice of medicine;
- The capacity to recognize and accept limitations in one's own knowledge and clinical skills, and an unyielding commitment to improve continuously personal knowledge and ability.

The College of Medicine must ensure that graduating students understand and demonstrate both the leadership responsibilities and duties of a physician in promoting, maintaining, and improving the health of individuals and populations. To ensure the acquisition of these attitudes and behaviors the students much demonstrate, to the satisfaction of the faculty, the following:

- A basic understanding of population health as it relates to epidemiology, biostatistics, disease prevention/health promotion, health care organization, management and financing, and environmental and public health;
- Knowledge of the important non-biological determinants of poor health and of the economic, psychological, social, and cultural factors that contribute to the development and/or continuation of maladies;

- Knowledge of the epidemiology of common maladies within a defined population, and the systematic approaches useful in reducing their incident and prevalence;
- The ability to identify individuals at risk for disease or injury, to select appropriate tests for detecting patients in the early stage of disease, and to determine strategies for responding appropriately;
- Knowledge of various approaches to the organization, financing, and delivery of health care;
- The willingness, ability, attitude and skills to assume or defer leadership roles, both in medicine and society, when appropriate;
- A commitment to provide care to patients who are unable to pay and to advocate access to health care for members of traditionally underserved populations.

The College of Medicine must ensure that students have the opportunity for early exposure and continued experiences in Rural Primary Care as an encouragement to practice in this clinical setting. To ensure that this goal is met, the faculty will provide the following experiences:

- Preceptor experiences with physicians in small towns and rural areas;
- Exposure to primary care physicians, both as teacher in the classroom and as mentors in a clinical setting;
- Meaningful interactions with both faculty and students of the School of Rural Public Health;
- Participation in both medical and nonmedical rural community activities.

The College of Medicine must ensure that graduating students possess the necessary training and skills in medical informatics to generate, collect, analyze, utilize and communicate appropriate biomedical information. To ensure that students possess the requisite knowledge and skills, the students must demonstrate, to the satisfaction of the faculty, the following;

- Knowledge of, and the ability to use, the information resources and tools available to support lifelong learning;
- Ability to assess critically biomedical information and data to support optimal medical decision-making;
- Ability to enter, retrieve and analyze patient-specific information from a clinical information system;
- Ability to select and utilize information resources for professional and patient education, and transmit that knowledge in oral, written, and electric forms;
- Ability to utilize information technology in managing the cost of medical care for individuals, populations, and society.